

Contrast-induced encephalopathy after coronary angiography in a heart transplant recipient: a case report

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KEYWORDS: contrast-induced encephalopathy, heart transplant, cardiac allograft vasculopathy, coronary angiography.

CITATION: *Cardiol Croat.* 2022;17(9-10):287. | <https://doi.org/10.15836/ccar2022.287>

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Introduction: Contrast-induced encephalopathy (CIE) is a rare neurological complication of the intra-vascular administration of iodinated contrast agent in angiographic procedures. Patients with CIE can experience various neurological deficits that usually occur shortly after the administration of iodinated contrast agent and resolve spontaneously within 48 hours^{1,2}.

Case report: 75-year-old male patient who received a heart transplant 13 years before the event and had undergone a total of eleven coronary angiographies and five percutaneous coronary interventions (PCI) due to cardiac allograft vasculopathy (CAV), was admitted for a regular follow-up. Coronary angiography followed by right coronary artery PCI with two drug-eluting stents implantation was performed during this hospital stay. An iodinated contrast agent was used. The patient received unfractionated heparin during the procedure. Two hours later the patient was found sitting on the bed, head and eye deviated on the left, unresponsive with orolimentary and gestural automatisms. Both pupils were equal. There was no facial asymmetry or lateralization. A head computed tomography (CT) scan was performed immediately and showed no signs of acute ischemia, hemorrhage, or focal intracranial process. Levetiracetam was introduced due to a suspected seizure. The cranial CT follow-up on the next day showed no abnormalities. Electroencephalography (EEG) revealed diffuse dysrhythmic changes with the focal slowing on the right frontotemporal and left frontocentrotemporal region, and paroxysmal discharges of high voltage low-frequency delta activity (encephalopathic pattern). Therefore, levetiracetam was continued. The patient was discharged on the fifth day oriented, responsive, and without speech impairment. Three months later, EEG showed a mild slowing in the right frontocentrotemporal and left frontotemporal regions.

Conclusion: CIE is a rare complication of cardiac catheterization, probably underrecognized and underdiagnosed. However, it should not be overlooked, and invasive cardiologists should be aware of this condition.

RECEIVED:
November 4, 2022

ACCEPTED:
November 10, 2022



LITERATURE

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